METROCK STEEL
INDUSTRIES

Copper Rod Manufacturing Process

BY METROCK STEEL

Raw Material Selection

- High-quality copper cathodes are selected
- Purity of copper is carefully inspected
- Raw materials are checked for contamination
- Proper storage prevents oxidation and damage
- Quality raw material ensures better final output

Melting Process

- Copper cathodes are charged into the furnace
- Furnace operates at very high temperatures
- Copper is melted into liquid form
- Impurities are removed during melting
- Temperature is continuously monitored for consistency

- Molten copper undergoes refining treatment
- Oxygen content is carefully controlled
- Slag and unwanted particles are removed
- Chemical composition is tested regularly
- Purification improves conductivity and strength

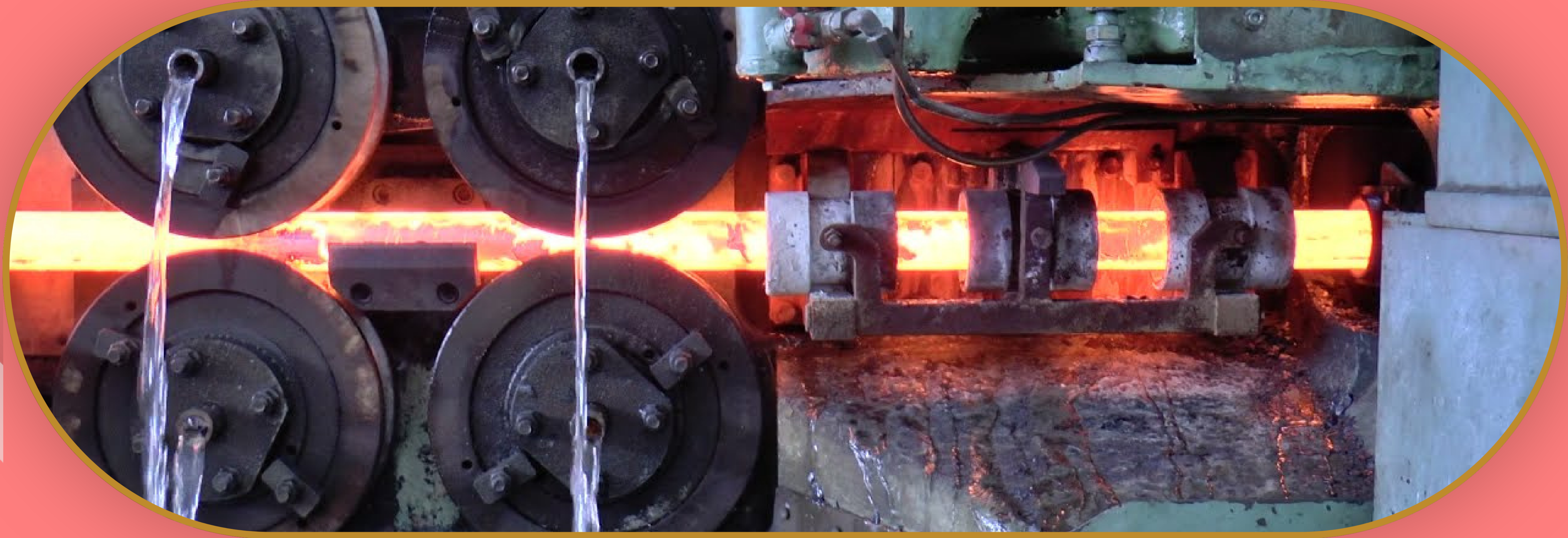
Refining and Purification

Continuous Casting Process

- Molten copper is poured into casting machines
- Copper is solidified into bar form
- Continuous casting ensures uniform structure
- Cooling systems maintain proper shape
- Casting reduces defects in the final product

Rolling Process

- Cast copper bars enter rolling mills
- Rod diameter is reduced gradually
- Multiple rolling stands improve accuracy
- Surface finish becomes smoother after rolling
- Rolling increases mechanical strength of rods



Cooling and Coiling

- Hot copper rods are cooled using water systems
- Proper cooling prevents cracks and defects
- Rods are wound into coils automatically
- Coil sizes are prepared as per requirements
- Cooling improves dimensional stability

Quality Testing and Inspection

- Electrical conductivity is tested carefully
- Surface quality is visually inspected
- Diameter and dimensions are measured accurately
- Mechanical strength tests are performed
- Final inspection ensures industry standards

Packaging and Storage

- Finished copper rods are packed securely
- Protective wrapping prevents surface damage
- Labels include size and batch information
- Coils are stored in dry warehouse conditions
- Proper packaging ensures safe transportation

Contact Us

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